


JoBurmester.com
Clinical Research Knowhow

GCP Introduction / Refresher

Date: August 2021
Course Tutor: Jo Burmester

1




JoBurmester.com
Clinical Research Knowhow

Objectives

- To provide a refresher on the regulations and guidelines to be followed.
- To provide information on recent changes in the regulations and guidelines.

2




JoBurmester.com
Clinical Research Knowhow

Agenda

- Clinical Trials Process
- ICH Intro/Refresher and Update
- EU Regulations and Guidelines
- Update on UK
- FDA Regulations
- GCP for Laboratories

3


 JoBurmester.com
Clinical Research Knowhow

What is a Clinical Trial

'clinical trial': any investigation in **human subjects** intended to **discover or verify** the clinical, pharmacological and/or other pharmacodynamic effects of **one or more investigational medicinal product(s)**...


Clinical Trials Directive, 2001/20/EC

4

 JoBurmester.com
Clinical Research Knowhow

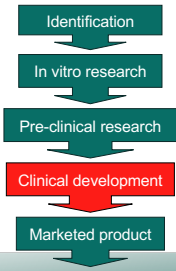
The Clinical Trial Process

5

 JoBurmester.com
Clinical Research Knowhow

The Drug Development Process

- From molecule to market place...



```
graph TD; A[Identification] --> B[In vitro research]; B --> C[Pre-clinical research]; C --> D[Clinical development]; D --> E[Marketed product];
```


6



JoBurmester.com
Clinical Research Knowhow

Clinical Trial Phases - Poll

7




JoBurmester.com
Clinical Research Knowhow

Clinical Development Phases & Types of Clinical Trial

- Phase I
- Phase II
- Phase III – a and b
- Phase IV
- PASS/PAES
- Post Marketing Observational
- Epidemiology

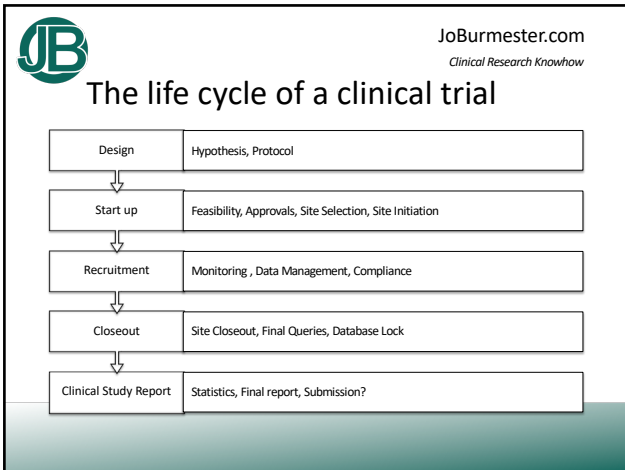
8



JoBurmester.com
Clinical Research Knowhow

Clinical Trial Processes

9



10

JoBurmester.com
Clinical Research Knowhow

Approvals Required

- Regulatory Approval (CTA or IND)
- Ethics Committee Approval (HRA in the UK, IRB in the US)
- Local Approvals if required – e.g. local health service


11

JoBurmester.com
Clinical Research Knowhow

ICH

- International Council on Harmonisation
- US, EU and Japan
- Purpose:
 - Harmonise marketing authorisation requirements
 - Reduce timelines and cost
 - Reduce subject exposure to investigational products


12

 JoBurmester.com
Clinical Research Knowhow

ICH Guidelines

- Q – quality topics
- S – safety topics
- E – efficacy topics
- M – multidisciplinary topics


13

 JoBurmester.com
Clinical Research Knowhow

ICH Guidelines

- Efficacy topics
 - Many Guidelines
 - E6 is the GCP Guideline
 - E2A to E2F are all about safety data
 - E3 is Structure and Content of Clinical Study Reports

14

 JoBurmester.com
Clinical Research Knowhow

ICH GCP

- ICH guideline E6
- No legal force
- Accepted by most countries now

Protection of human subjects


Quality of data

15

 **ICH GCP** JoBurmester.com
Clinical Research Knowhow

- 1. Glossary
- 2. Principles
- Responsibilities {
 - 3. Institutional Review Board/Independent Ethics Committee
 - 4. Investigator
 - 5. Sponsor
- Documentation {
 - 6. Protocol / amendments
 - 7. Investigator's Brochure
 - 8. Essential Documents


16

 JoBurmester.com
Clinical Research Knowhow

Who is responsible?

- Poll


17

 JoBurmester.com
Clinical Research Knowhow

ICH E6 Addendum

- Finalised November 2016
- Increased complexity and globalisation
- Makes additions but no changes to original text

18

 JoBurmester.com
Clinical Research Knowhow

Update to ICH E6

- Proposals to facilitate
 - Implementation of new technologies
 - Risk Management
 - Risk Based Monitoring
 - Focus on critical study elements


19

 JoBurmester.com
Clinical Research Knowhow

Ethics Committees

- Review trial for ethics
- Appropriately constituted
- Keep records for 3 years

20

 JoBurmester.com
Clinical Research Knowhow

Investigator

- Trial conduct at site
- Welfare of participants
- Informed Consent
- Data collection and reporting
- Management of IMP at site


21

 JoBurmester.com
Clinical Research Knowhow

Sponsor

- Design, management and funding
- Regulatory requirements and compliance
- Risk based quality management
- Monitoring and oversight
- Safety review and reporting
- Final study report


22

 JoBurmester.com
Clinical Research Knowhow

ICH GCP

- Ultimate responsibilities
 - Sponsor
 - Funding
 - Regulatory requirements
 - Ensuring Protocol, GCP and GMP compliance
 - Investigator
 - Trial Conduct at site
 - Subject safety and wellbeing
- Can delegate task but not responsibility
- Need very clear documentation

23


 JoBurmester.com
Clinical Research Knowhow

ICH GCP

- Essential Documents
 - Protocol and Amendments
 - How the study is to be conducted
 - Investigator's Brochure
 - All about the investigational product
 - CRF
 - Where all the study data are recorded
 - Trial Master File/ Investigator Site File
 - All documentation and correspondence

"If it's not documented it didn't happen!"


24

 JoBurmester.com
Clinical Research Knowhow







ICH E8 and E6 “Renovation”

- ICH consulting on revision of E8 (General Considerations) and E6
- E8 currently in draft
- E6 draft principles available
- More information on ICH website


25

 JoBurmester.com
Clinical Research Knowhow

Eudralex Vol 10

1 	2 	3 
4 	5 	6 


26

 JoBurmester.com
Clinical Research Knowhow

New EU Regulation

- Final version now published
- Implementation 6 months after database is finalised
- Will apply from 31 January 2022
- “will ensure that the rules for conducting clinical trials are identical throughout the EU”


27

 JoBurmester.com
Clinical Research Knowhow

EU Regulation – Key Changes

- Authorisation
 - Fast
 - Single outcome
- Simplified reporting procedures
- Transparency on trial status and results
- EMA inspection powers


28

 JoBurmester.com
Clinical Research Knowhow

Authorisation

- Can't use this system until database is ready (at least 2016)
- Part I
 - Assessment by Reporting Member State (RMS)
 - Coordinated review by all involved member states
 - Consolidation by RMS


29

 JoBurmester.com
Clinical Research Knowhow

Authorisation


- Part 2
 - National review (done in parallel with part 1)
- National approval based on reports from part 1 and part 2

30

 UK Legislation JoBurmester.com
Clinical Research Knowhow


- **SI 2004 No.1031**
- SI 2005 No. 2754 and 2759
- **SI 2006 No.1928** and 2984
- SI 2008 No. 941
- SI 2009 No. 1164

31

 SI 2004 No. 1031 JoBurmester.com
Clinical Research Knowhow


- Medicines for Human Use (Clinical Trials) Regulations 2004
- Contains 9 parts and 12 schedules

32

 1031 JoBurmester.com
Clinical Research Knowhow

- **Parts:**
 1. Introductory Provisions
 2. Ethics Committees
 3. Authorisation For Clinical Trials And Ethics Committee Opinion
 4. Good Clinical Practice And The Conduct Of Clinical Trials
 5. Pharmacovigilance
 6. Manufacture And Importation Of Investigational Medicinal Products
 7. Labelling Of Investigational Medicinal Products
 8. Enforcement And Related Provisions
 9. Miscellaneous Provisions


33

 JoBurmester.com
Clinical Research Knowhow

SI 2006 No. 1928

- The Medicines for Human Use (Clinical Trials) Amendment Regulations 2006
- Produced to implement GCP Directive
- Does not supersede 1031, but does make some amendments to it.


34

 JoBurmester.com
Clinical Research Knowhow

1928

- Many of the sections are correcting typos, making amendments which reflect the changes in the EU or including references to the GCP Directive
- Some new provisions and changes were significant – Serious Breaches!!


35

 JoBurmester.com
Clinical Research Knowhow

SI 2006: 1928

- Notification of Serious Breaches
 - Sponsor to notify licensing authority in writing of serious breaches of GCP or the Protocol within **7 days** of becoming aware
 - Serious breach is one which is likely to significantly affect the wellbeing of subjects or the scientific value of the trial.

36

 JoBurmester.com
Clinical Research Knowhow

Serious Breaches

- Currently UK requirement
- Will come in when CT Regulation applies
- Draft EMA guidance issued
- MHRA guidance still available


37

 JoBurmester.com
Clinical Research Knowhow

Serious Breaches

- Examples


38

 JoBurmester.com
Clinical Research Knowhow

Serious Breach?

- One subject was administered 6 additional doses of IMP. The subject was to receive IMP on day 1 and 8 but instead received IMP on days 1 to 8. The subject experienced a severe adverse event as a result.

39

 JoBurmester.com
Clinical Research Knowhow

Serious Breach?

- A subject took IMP that had expired two days ago. The subject did not experience any adverse events and this issue was not likely to affect the data credibility of the trial.

40

 JoBurmester.com
Clinical Research Knowhow

Brexit

- EU Legal representative
- If no EU office outside UK will need to appoint a legal representative to run trials in the EU


41

 JoBurmester.com
Clinical Research Knowhow

IMP in “No-Deal Brexit”

- QP certification from other EU countries will still be recognized, but UK QP review needed – 12 months to comply
- IMPs can be sent direct to investigational sites
- Import license will be required – 12 months to comply
- Will need EU QP release to export from UK

42

 JoBurmester.com
Clinical Research Knowhow

Brexit

- CTA process
 - Now have to use UK system rather than EU system
 - cWoW will roll out this year
- Need to register trial and results in a public database e.g. clinicaltrials.gov
- UK will have its own portal and public database in due course


43

 JoBurmester.com
Clinical Research Knowhow

Brexit

- Expedited safety reports
 - Cannot now use Eudravigilance for reports in UK
 - Must use MHRA online system

44

 JoBurmester.com
Clinical Research Knowhow

The Future in the UK

- MHRA consulting on revised legislation
- First new legislation likely to come out later this year
- Second phase next year
- Many aspects of EU CTR and ICH E6(R3) will be implemented

45




JoBurmester.com
Clinical Research Knowhow

GCP Regulations

21 CFR

46




JoBurmester.com
Clinical Research Knowhow

Code of Federal Regulations

- CFR Title 21
- US legislation governing food, drugs (including biologicals), cosmetics, radiation emitting devices, medical devices, veterinary products
- Parts we need to know about:
 - 11 – electronic records and electronic signatures
 - 50 – protection of human subjects (informed consent)
 - 54 – Financial Disclosure by clinical investigators
 - 56 – Institutional Review Boards
 - 201 – Labelling
 - 312 – Investigational New Drug application

47




JoBurmester.com
Clinical Research Knowhow

EU vs US

US	EU
	CTA
	IEC
1572	
Financial Disclosure	

48


 JoBurmester.com
Clinical Research Knowhow

GCP for Clinical Laboratories

Issues to consider

- Logistics
 - Transport
 - Receipt
 - Identification
 - Storage

49


 JoBurmester.com
Clinical Research Knowhow

GCP for Clinical Laboratories

Issues to consider

- Processing
 - Method Validation
 - Standards
 - Data
 - Repeat analysis
 - Blinding/Unblinding

50


 JoBurmester.com
Clinical Research Knowhow

GCP for Clinical Laboratories

Issues to consider

- Facilities and equipment
- QA and QC

51

 JoBurmester.com
Clinical Research Knowhow


GCP for Clinical Laboratories

Data Handling

“It was not possible to verify that the laboratory method used was the one that had been validated as the scientist who had performed the research had left the laboratory, taking the method development and validation records with him.”

MHRA inspection finding

52


 JoBurmester.com
Clinical Research Knowhow

GCP for Clinical Laboratories

The Patients

- Safety
 - Adverse Event reporting
 - Eligibility and enrollment decisions
 - Other issues which might impact subject safety
- Consent
 - Only perform tests in the protocol and consent form
 - Withdrawal of consent
 - Death of a patient
- Confidentiality
 - Patient identification
 - Labelling and forms

53


 JoBurmester.com
Clinical Research Knowhow

GCP for Clinical Laboratories

Exercise

- For each of the following outline how you could demonstrate to an inspector that you have met GCP requirements
 - Patients have consented to the tests being performed
 - Only tests required by the clinical trial protocol are performed on samples in the lab
 - Source data can be used to verify information in the laboratory reports
 - There is a system in place for alerting results that are unexpected and/or significant deviations from pre- specified limits

54




JoBurmester.com
Clinical Research Knowhow

Summary

- Clinical Trials Process
- ICH Intro/Refresher and Update
- EU Regulations and Guidelines
- Update on UK
- FDA Regulations
- GCLP

55



JoBurmester.com
Clinical Research Knowhow

Thank you for coming!

- Feedback forms
- Certificates
- Follow up information

56
